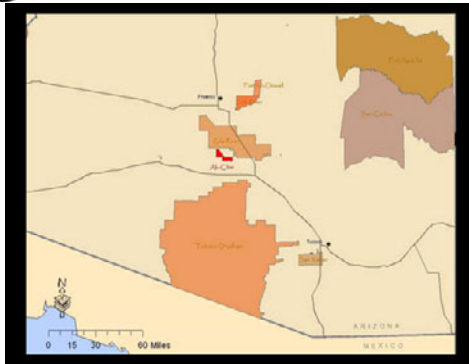


Ak-Chin Indian Community's 319(h) Projects

Nathan Long, Utilities Technician
May 16-19, 2006
Prescott, Arizona







Tamarisk Removal








Tamarisk Removal





- * Restoration Area
 - Three Areas:
 - * CAP Lateral Inflow (1,600 ft x 6 ft)
 - * Lateral Fingers (1,700 ft x 20 ft)
 - * Termination Pond (one acre)
 - Salt Cedar ("Tamarisk") Removal
 - * Survey number of trees within the three areas



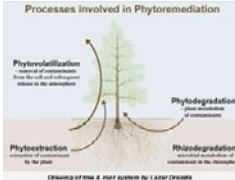
Tamarisk Removal


- * Salt Cedar trees have encroached and slowly eliminated native species
- * Removed 500 Salt Cedar ("Tamarisk") trees, located around pond and finger areas
- * "Cut, stump & treat" method by licensed contractor




Phytoremediation




- * Passive, solar-energy driven cleanup technique
- * Most useful at sites with shallow, low levels of contamination
- * Useful for treating a wide variety of environmental contaminants



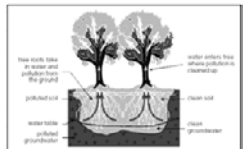
Phytoremediation




- * EPA FY 2002/ FY 2003
- * Clean Water Act (CWA) 319(h) federal funds to support an "On the Ground" project
- * Remove and/or decrease nitrate(s) by phytoremediation
- * Plant Cottonwood trees to absorb water into root system and reduce nitrate levels




Phytoremediation



- * Plants and trees act as hydraulic pumps
- * A Cottonwood tree can transpire between 50 and 300 gallons of water per day, that is 109,500 gallons per year per tree
- * There are several applications such as riparian corridors/buffer strips and vegetative caps




Cultural Resources Department Volunteers 02-11-02






Same Tree 05-05-06





Project Outcomes




- * Increased seasonal and migratory waterfowl
- * Council approves an area designated as "Environmental"
- * Reintroduction of native species greatly appreciated by Ak-Chin Community members




On Going Projects



- * Removal of debris next to riparian areas and wetland areas
- * Restore area with culturally significant species
- * Installation of engineered structures to reduce erosion



Future Projects



- * Rehabilitation of windmill
- * Reintroduction of native species in riparian areas
- * Removal of livestock from wetland areas
- * Fencing of wetland area
- * Erosion control installation of windbreaks



Questions?

For more information:

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 (520) 568-9387
